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New data on the late Famennian miospore assemblage of the Cercal Anticline (westernmost Iberian Pyrite Belt area), Portugal

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The Cercal Anticline (CA) is located in the westernmost region of the Iberian Pyrite Belt (IPB). The exposed stratigraphic sequence includes, in ascending order, the Volcano-Sedimentary Complex (VSC) followed by the *Xistos das Abertas* Fm, which passes gradually to the flysch sequence of the Mira Formation (Carvalho, 1976). The VSC is composed from base to top by: Felsic Volcanics (Vα), that comprehends lavas, pumice and volcaniclastic beccias with intercalations of volcanogenic shales; diabases and intermediate/basic subvolcanics (Vβ); jaspers and the S. Luís Formation (SL), a unit composed of shales, phyllites, siliceous shales and volcanogenic sediments. About 500m NW of São Luís village, at the base of this last unit, brachiopods ascribed to the late Strunian were found (Quiring, 1936). This determination led Carvalho (1976) to assume that the volcanics of the VSC are older than the Strunian, meaning so that this volcanism is the oldest in the Portuguese IPB.

The stratigraphic succession of the CA is still poorly constrained, in terms of lithostratigraphy and age. In fact, three boreholes carried out in the hinge zone of the anticline by the Elf Aquitane company, about 1km NW of São Luis village, showed that below the felsic volcanics a thick (>250m) succession of dark shales and siltstones occur. These shales yielded very well preserved specimens of *Grandispora echinata* together with *Ancyrospora* spp., *Apiculiretusispora* sp., *Auroraspora macra*, *Cristicavatispora dispersa*, *Diducites poljessicus*, *D. mucronatus, D. versabilis*, *Emphanisporites annulatus*, *Grandispora cornuta*, *Punctatisporites* spp., *Retispora* cf. *macroreticulata*, *Retusotriletes phillipsii, R. planus*, *R. triangulatus*, *R. rugulatus*, *Rugospora explicata* and *R. radiata.* This assemblage indicates the VH Biozone of late Famennian age. It is similar to those found in shales interbedded in felsic volcanics in several regions of the Portuguese Pyrite Belt (Neves Corvo Mine, Albernoa Anticline, São Domingos Mine). Palynostratigraphic research in the CA is currently still in progress. However, these preliminary results show that the age of the CA felsic volcanics is similar to that obtained in the northeastern branches of the Portuguese Pyrite Belt and no prove that the volcanism migrated in time to the NW, as suggested by Carvalho (1976), could be detected.